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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/584,870	06/08/2007	Noel R.M. de Keyser	L0012US	9678
<div>7590 05/25/2010</div> <div>DONNA B. HOLGUIN KRATON POLYMERS U.S. LLC INTELLECTUAL PROPERTY ASSET MANAGER 3333 HIGHWAY 6, RM. CA-108 HOUSTON, TX 77082</div>				
EXAMINER				
SCOTT, ANGELA C				
ART UNIT		PAPER NUMBER		
1796				
MAIL DATE		DELIVERY MODE		
05/25/2010		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/584,870

**Applicant(s)**

DE KEYZER ET AL.

**Examiner**

Angela C. Scott

**Art Unit**

1796

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 January 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 11-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/22)
- Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

Applicant's responses of January 26, 2010 and December 9, 2009 are fully considered. Claims 11, 16, 21, and 26 are amended and claims 11-29 are pending.

#### *Claim Rejections - 35 USC § 103*

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 11-25 rejected under 35 U.S.C. 103(a) as being unpatentable over de Keyzer et al. (WO 02/057386).

de Keyzer et al. teaches an adhesive composition for pressure sensitive adhesives, packaging tapes and labels, and multipurpose hot-melt adhesives (Page 1, lines 10-15) comprising a block copolymer, a mixed aliphatic/aromatic hydrocarbon resin, and a plasticizing oil (Page 3, lines 25-27). In Tables 1 and 2, Polymer E exemplifies the block copolymer as a styrene-butadiene/isoprene(B/I)-styrene copolymer with a (B/I) ratio of 1:1, a polystyrene content of 17.6%, and a coupling efficiency of 87%. The block copolymer preferably has a weight average molecular weight ranging from 100,000 to 500,000, preferably from 150,000 to 250,000 (Page 5, lines 21-25). The block copolymer preferably contain 1,2-vinyl bonds and/or 3,4-vinyl bonds in a proportion of at most 15 weight percent, based on the weight of the conjugated diene (Page 5, lines 25-30). Table 12, example F30 shows Polymer E combined with WINGTACK ET as the hydrocarbon resin and C-956 as the plasticizing oil. WINGTACK ET is an aromatically modified aliphatic hydrocarbon resin with a softening point of 94° C, an aromaticity of 4.2% (Page 21, Table 3), and a glass transition temperature (midpoint) of 50° C (Technical Data Sheet). C-956 is a naphthenic oil which is a type of mineral oil (Page 22, Table 3). According to Example F30 in Table 12, the block copolymer is present in an amount of 44% by weight, the resin is present in an amount of 48% by weight, and the oil is present in an amount of 7% by weight.

de Keyzer et al. does not teach that the coupling efficiency of the block copolymer is between 63% and 80%. However, a *prima facie* case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties. *Titanium Metals Corp. of America v. Banner*,

778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985). MPEP 2144.05. From examples, de Keyzer et al. shows polymers which have a coupling efficiency in the range of 81% to 87%. While the claimed range, 63% to 80%, and the prior art range do not overlap, they are close enough that one skilled in the art would have expected them to have the same properties, especially when used in adhesive compositions. Therefore, absent a proper showing to the contrary, a *prima facie* case of obviousness exists in this case.

Even if all of the claimed effects and physical properties are not positively stated by the reference, the reference teaches all of the claimed ingredients as described above. Therefore, the claimed effects and physical properties would implicitly be achieved by combining the disclosed ingredients. If it is applicant's position that this would not be the case: (1) evidence would need to be presented to support applicant's position; and (2) it would be the examiner's position that the application contains inadequate disclosure that there is no teaching as to how to obtain the claimed properties and effects by combining only these ingredients.

The transitional phrase "consisting essentially of" limits the scope of a claim to the specified materials or steps "and those that do not materially affect the basic and novel characteristic(s)" of the claimed invention. *In re Herz*, 537 F.2d 549, 551-52, 190 USPQ 461, 463 (CCPA 1976). For the purposes of searching for and applying prior art under 35 U.S.C. 102 and 103, absent a clear indication in the specification or claims of what the basic and novel characteristics actually are, "consisting essentially of" will be construed as equivalent to "comprising." See, e.g., PPG, 156 F.3d at 1355, 48 USPQ2d at 1355. If an applicant contends that additional steps or materials in the prior art are excluded by the recitation of "consisting essentially of," applicant has the burden of showing that the introduction of additional steps or components would materially change the characteristics of applicant's invention. *In re De Lajarte*, 337 F.2d 870, 143 USPQ 256 (CCPA 1964). MPEP 2111.03.

Claims 26-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over de Keyzer et al. (WO 02/057386).

de Keyzer et al. teaches an adhesive composition comprising a block copolymer (Page 3, lines 25-27). In Tables 1 and 2, Polymer E exemplifies the block copolymer as a styrene-butadiene/isoprene(B/I)-styrene copolymer with a (B/I) ratio of 1:1, a polystyrene content of

17.6%, and a coupling efficiency of 87%. The block copolymer preferably has a weight average molecular weight ranging from 100,000 to 500,000, preferably from 150,000 to 250,000 (Page 5, lines 21-25). The block copolymer preferably contain 1,2-vinyl bonds and/or 3,4-vinyl bonds in a proportion of at most 15 weight percent, based on the weight of the conjugated diene (Page 5, lines 25-30). According to Example F30 in Table 12, the block copolymer is present in an amount of 44% by weight.

de Keyzer et al. does not teach that the coupling efficiency of the block copolymer is between 63% and 80%. However, a *prima facie* case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties. *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985). MPEP 2144.05. From examples, de Keyzer et al. shows polymers which have a coupling efficiency in the range of 81% to 87%. While the claimed range, 63% to 80%, and the prior art range do not overlap, they are close enough that one skilled in the art would have expected them to have the same properties, especially when used in adhesive compositions. Therefore, absent a proper showing to the contrary, a *prima facie* case of obviousness exists in this case.

While the specific example of Polymer E in Table 2 has a molecular weight of 195,000, which is outside of the narrow range of 180,000 to 190,000 and more specifically 180,000 to 185,000, the claimed range lies completely within the preferred range taught by de Keyzer et al. In the case where the claimed ranges “overlap or lie inside ranges disclosed by the prior art” a *prima facie* case of obviousness exists. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990). MPEP 2144.05.

The transitional phrase “consisting essentially of” limits the scope of a claim to the specified materials or steps “and those that do not materially affect the basic and novel characteristic(s)” of the claimed invention. *In re Herz*, 537 F.2d 549, 551-52, 190 USPQ 461, 463 (CCPA 1976). For the purposes of searching for and applying prior art under 35 U.S.C. 102 and 103, absent a clear indication in the specification or claims of what the basic and novel characteristics actually are, “consisting essentially of” will be construed as equivalent to “comprising.” See, e.g., PPG, 156 F.3d at 1355, 48 USPQ2d at 1355. If an applicant contends that additional steps or materials in the prior art are excluded by the recitation of “consisting

essentially of,” applicant has the burden of showing that the introduction of additional steps or components would materially change the characteristics of applicant’s invention. *In re De Lajarte*, 337 F.2d 870, 143 USPQ 256 (CCPA 1964). MPEP 2111.03.

### ***Response to Arguments***

Applicant’s arguments filed December 9, 2009 have been fully considered but they are not persuasive.

Applicants argue that the claimed molecular weight is less than that in the examples of de Keyzer et al. However, applicant is reminded that a reference may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art, including nonpreferred embodiments. *Merck & Co. v. Biocraft Laboratories*, 874 F.2d 804, 10 USPQ2d 1843 (Fed. Cir.), cert. denied, 493 U.S. 975 (1989). MPEP 2123. de Keyzer et al. teaches block copolymers with a molecular weight range of from 100,000 to 500,000, preferably from 150,000 to 250,000 (Page 5, lines 21-25), which encompasses the range of 180,000 to 190,000 that is claimed.

Applicant’s argue that the claims require the viscosity of the composition to vary only within plus or minus 5% of the starting viscosity after 24 hours and that Polymer E (examples) of de Keyzer et al. does not meet this criteria. Applicants refer to Table 3, Composition B (same as Polymer E), of the instant specification to show that the deKeyzer et al. polymer does not meet the viscosity requirement. However, in Table 1 of the instant specification, a different coupling agent is used for Composition B than for the inventive examples. Therefore, a side by side comparison cannot be made between the polymers. Also, it is not clear as to the exact additives used and how much of the additive is used in the comparative examples and the inventive examples. Moreover, the change in viscosity requirement as claimed applies to the composition as a whole and not to just the polymer used. Therefore, it has not sufficiently been shown that this property is not met by modifying the de Keyzer et al. reference as outlined in the Final Office Action.

Applicants argue that the coupling efficiency of the present invention is in a lesser range than that of de Keyzer et al. A *prima facie* case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties. *Titanium Metals Corp. of America v. Banner*, 778

F.2d 775, 227 USPQ 773 (Fed. Cir. 1985). MPEP 2144.05. From examples, de Keyzer et al. shows polymers which have a coupling efficiency in the range of 81% to 87%. While the claimed range, 63% to 80%, and the prior art range do not overlap, they are close enough that one skilled in the art would have expected them to have the same properties, especially when used in adhesive compositions. Therefore, absent a proper showing to the contrary, a *prima facie* case of obviousness exists in this case. Moreover, it would have been obvious to one of ordinary skill in the art to optimize the above range in order to change the viscosity of the polymer, as stated in the Final Office Action.

### *Correspondence*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela C. Scott whose telephone number is (571) 270-3303. The examiner can normally be reached on Monday through Friday, 9:00 am to 5:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on (571) 272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark Eashoo/  
Supervisory Patent Examiner, Art Unit 1796

/A. C. S./  
Examiner, Art Unit 1796  
May 21, 2010